



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

September 5, 2002

CERTIFIED MAIL No. 7000 1670 0013 9129 4336

Steve Groening, Plant Manager
Unimin Corp.
4601 Cascade Rd.
Emmett, ID 83617

RE: AIRS Facility No. 045-00003, Unimin Corp., Emmett
Final Tier II Operating Permit and Permit to Construct No. 045-00003

Dear Mr. Groening:

The Idaho Department of Environmental Quality (Department) is issuing revised Tier II Operating Permit and Permit to Construct No. 045-00003 for Unimin Corp. in accordance with IDAPA 58.01.01.400 through 470 and 58.01.01.200-228, *Rules for the Control of Air Pollution in Idaho (Rules)*.

The enclosed permit is effective immediately and supercedes the previous permit issued on June 9, 1999. The permit is based on the information contained in your application and all relevant comments received during the public comment period. Modification to and/or renewal of this permit shall be requested in a timely manner in accordance with the *Rules*.

Michael McGown of the Boise Regional Office will contact you regarding a meeting with the Department to discuss the permit terms and requirements. In addition to your facility's plant manager, the Department recommends the following representatives attend the meeting: your responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with the permit conditions.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to IDAPA 58.01.23 (*Rules of Administrative Procedure Before the Board of Environmental Quality*). A petition may be filed with the Hearings Coordinator, Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255, within 35 days of the date of this decision. However, prior to filing a petition for a contested case, the Department encourages you to contact Mike Simon at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Katherine B. Kelly
Administrator
Air Quality Division

Enclosure

cc: Joan Lechtenberg, Air Quality Division
Michael McGown, Boise Regional Office
Kent Berry, EQM

Dirk Kempthorne, Governor
C. Stephen Allred, Director

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DEPT. OF ENVIRONMENTAL QUALITY
TECHNICAL SERVICES OFFICE



Air Quality
TIER II OPERATING PERMIT
and
PERMIT TO CONSTRUCT

State of Idaho
Department of Environmental Quality

PERMIT NO: 045-00003

AQCR: 63

CLASS: SM

SIC: 1446

ZONE: 11

UTM COORDINATE (km): 536.8 , 4857.1

1. PERMITTEE
Unimin Corp.

2. PROJECT
Tier II Operating Permit Renewal and Permit to Construct

3. MAILING ADDRESS
4601 Cascade Road

CITY
Emmett

STATE
ID

ZIP
83617

4. FACILITY CONTACT
Steve Groening

TITLE
Plant Manager

TELEPHONE
(208) 365-7153

5. RESPONSIBLE OFFICIAL
Steve Groening

TITLE
Plant Manager

TELEPHONE
(208) 365-7153

6. EXACT PLANT LOCATION
NE ¼, SW ¼, S11, T6N, R2W

COUNTY
Gem

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS
Industrial Sand

8. PERMIT AUTHORITY

This permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.400-470 and IDAPA 58.01.01.200-228. This permit pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to Department review in accordance with IDAPA 58.01.01.200.

KATHERINE B. KELLY, ADMINISTRATOR, AIR QUALITY DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: September 5, 2002

September 5, 2002

**STATE OF IDAHO
DEPARTMENT OF ENVIRONMENTAL QUALITY
RESPONSE TO PUBLIC COMMENTS
ON PROPOSED TIER II AIR QUALITY PERMIT
FOR UNIMIN CORP., EMMETT, IDAHO**

Introduction

As required by IDAPA 58.01.01.404.01 (*Rules for the Control of Air Pollution in Idaho*), the Idaho Department of Environmental Quality (DEQ) provided for public comment, including offering an opportunity for a hearing, a Tier II operating permit proposed for the Unimin Corp. facility located in Emmett, Idaho. Public comment packages, which included the application materials, and proposed permit and technical memorandum, were made available for public review at the DEQ's Boise Regional Office, and DEQ's State Office in Boise. A copy of the proposed permit and technical memorandum was also posted on DEQ's Web site. The public comment period was provided from May 30, 2002 through June 28, 2002, with no public hearing requested. Those comments regarding the air quality aspects of the draft permit are provided below with DEQ's response immediately following.

Public Comments and DEQ Responses

The following comments were received from Unimin.

- Comment: Unimin provided various changes to equipment designation numbers, model numbers, and equipment that is vented to the various scrubbers.
 - Response: The changes requested have been made.
- Comment: Section 3.6 – Unimin recommended refinement to the scrubbing media flowrate requirements for scrubber DC-02.
 - Response: The changes requested have been made.
- Comment: Section 3.8 – Unimin requested a permit limit on the amount of diesel fuel burned.
 - Response: The changes requested have been made.
- Comment: Section 3.9 – Unimin requested additional monitoring conditions to implement the revised scrubber flowrate requirements and the diesel fuel limit.
 - Response: The changes requested have been made.
- Comment: Section 4.4 – Unimin requested that this condition be revised to state that the New Source Performance Standards (NSPS) emission limit under 40 CFR 60.672(a)(1) applies only to scrubber DC-02.
 - Response: Based on the construction dates of the equipment provided by Unimin, Dust Collectors DC-01, DC-02, and DC-04 control equipment exhaust are subject to the particulate emission standards contained in Subpart OOO. The affected sources that are tied to these scrubber units are VS-14 (vented to DC-01), VS-07 and VS-08 (vented to DC-02), and BA-03 (vented to DC-04). Therefore, the emission standard of 0.05 gr/dscm does apply to the emission points.
- Comment: Section 4.10 – In a comment related to the above, Unimin requested deletion of the requirement to test DC-01 and DC-04 for compliance with the NSPS emission limit.
 - Response: The initial opacity performance test requirement under NSPS has already been completed for VS-14 and BA-03 as stated by the applicant. This initial performance test was to determine compliance with the opacity standard. Those sources now have changed the control equipment and the new emission standards are now 0.05 gr/dscm. Subsequent performance testing is now required by the state of Idaho to determine compliance with the grain loading NSPS emission standard because compliance has never been demonstrated.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
AQCR	Air Quality Control Region
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
CFR	Code of Federal Regulations
CO	carbon monoxide
Department	Department Of Environmental Quality
EPA	U.S. Environmental Protection Agency
ft	feet
gpm	gallons per minute
gr/dscm	grains per dry standard cubic meter
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
in.	inches
km	kilometer
MMBtu/hr	million British thermal units per hour
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	prevention of significant deterioration
PTC	permit to construct
SIC	Standard Industrial Classification
SO ₂	sulfur dioxide
T/hr	tons per hour
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
 Location: Emmett, Idaho

Date Issued: September 5, 2002

1. TIER II OPERATING PERMIT SCOPE**Purpose**

- 1.1 The purpose of this Tier II Operating Permit and Permit to Construct is to renew and revise Tier II Operating Permit No. 045-00003, issued June 9, 1999, and incorporate existing PTCs.
- 1.2 This Tier II Operating Permit and Permit to Construct incorporates the following permits:
- Tier II Operating Permit No. 045-00003, issued June 9, 1999
 - PTC No. 045-00003, issued June 3, 1997

Regulated Sources

- 1.3 Table 1.1 below lists all sources of emissions that are regulated in this permit.

Table 1.1 REGULATED EMISSION SOURCES

Permit Sections	Source Description	Emission Controls
3	Dryer DR-01, Starkaire 10' diameter, with North American gas burner; installed before 9/23/83	Wet scrubber DC-03 BACT model ME-V21
4	Vibrating screens VS-10 and VS-11, Derrick model K48-96A-3SM Screw conveyors SC-03 and SC-04 Bucket elevators BE-01, BE-02, and BE-03; installed before 9/23/83 Screen VS-14, Derrick model K48-120A-2S; installed after 6/3/97	Wet scrubber DC-01, BACT model MEV-12, 12,000 acfm
4	Coarse screens VS-01 and VS-02, Derrick model 48-96A-3SM; installed before 4/28/67 Coarse screens VS-03 and VS-04, Derrick model 48-96A-2S; installed 5/2/67 Coarse screen VS-05, Derrick model K-48-120A-2S; installed 5/2/67 Coarse screen VS-06, Derrick model K24-48A-2S Coarse screens VS-07 and VS-08, Derrick model K48-120A-3SM; installed 4/17/86 Coarse screen VS-09, Derrick model K48-96A-2S, 4 ft. x 8 ft., installed 1/16/70 Bucket elevators BE-04 and BE-05, respectively; installed before 9/23/83 Bins BN-01 to BN-11; installed before 9/23/83 Belt conveyors BC-05, BC-06, and BC-10; installed before 9/23/83 Screw conveyors SC-05, SC-06, SC-07, and SC-08	Wet scrubber DC-02, Riley model A-33-14
4	Sand baggers BA-01 and BA-02, St. Regis Jr. Force Flow; installed before 9/23/83 Sand bagger BA-03, Unimin; installed before 9/23/92 Belt conveyors BC-06 and BC-07; installed before 9/23/83 Hoppers HO-05 and HO-06, Loading Spout LS-04, installed before 9/23/83	Wet scrubber DC-04, BACT model ME-V006, 6,000 acfm
5	Rod mill RM-01, Allis Chalmers, installed 12/31/88 Cam Belt CB-01 and Belt conveyor BC-12, installed 12/1/86 and before 1990, respectively	None
6	Hoppers HO-01 and HO-03, Feeder FE-01, and Cam Belt CB-01 (see above); installed before 9/23/83 Rod mill RM-01 (see above) Screens VS-12 and VS-13 Hopper HO-02, Screw conveyors SC-01 and SC-02, and Belt conveyor BC-02; all installed before 9/23/83	None
7	Hoppers HO-05 and HO-04, Belt conveyors BC-07 and BC-11 and all installed before 9/23/83	None
2	Stockpiles, roads and all other fugitive sources	Reasonable Controls

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

2. FACILITY-WIDE CONDITIONS

Fugitive Emissions

- 2.1 All reasonable precautions shall be taken to PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. Some of the reasonable precautions include, but are not limited to, the following:

Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.

Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.

Installation and use, where practical, of hoods, fans, and fabric filters, or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.

Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.

Paving of roadways and their maintenance in a clean condition, where practical.

Prompt removal of earth or other stored material from streets, where practical.

[IDAPA 58.01.01.650-651, 5/1/94]

- 2.2 Unless specified elsewhere in this permit, the permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.

[IDAPA 58.01.01.405.01, 5/1/94]

- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

[IDAPA 58.01.01.405.02, 5/1/94]

Visible Emissions

- 2.4 No person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which has greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason(s) for the failure of the emission to comply with the requirements of this section.

[IDAPA 58.01.01.625, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

Excess Emissions

- 2.5 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets, and breakdowns.
[IDAPA 58.01.01.130-136, 4/5/00]

Reports and Certifications

- 2.6 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to the following:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706-2239

[IDAPA 58.01.01.405.01, 5/1/94]

Open Burning

- 2.7 The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, *Rules for Control of Open Burning*.

[IDAPA 58.01.01.600-616, 5/1/94]

Performance Testing

- 2.8 For any stack testing required by this permit, the permittee shall provide notice of intent to test to the Department at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by Department approval. The Department may, at its option, have an observer present at any emissions tests conducted on a source. The Department requests that such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior Department approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by the Department for any testing deviations, the Department may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any compliance test, the permittee is strongly encouraged to submit in writing to the Department, at least 30 days in advance, the following for approval:

- The type of method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

Within 30 days following the date in which a compliance test required by this permit is concluded, the permittee shall submit to the Department a compliance test report for the respective test. The compliance test report shall include a description of the process, identification of the method used, equipment used, all process operating data collected during the test period, and test results as well as raw test data and associated documentation, including any approved test protocol.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

The permittee shall use the following test methods described in Table 2.1 to measure the pollutant emissions:

Table 2.1 FACILITY-WIDE TEST METHODS

Pollutant	Test Method	Special Conditions
PM ₁₀	EPA Method 201.a.*	
PM	EPA Method 5*	
NO _x	EPA Method 7*	
SO ₂	EPA Method 6*	
CO	EPA Method 10*	
VOC	EPA Method 25*	
Opacity	EPA Method 9*	If a NSPS source, use IDAPA 58.01.01.625 and Method 9; otherwise, IDAPA 58.01.01.625 only.

* Or Department-approved alternative in accordance with IDAPA 58.01.01.157

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.405.02]

Air Stagnation Advisory Days

2.9 The permittee shall comply with the Air Pollution Emergency Rules in IDAPA 58.01.01.550 through 562.

[IDAPA 58.01.01.550, 5/1/94]

Obligation to Comply

2.10 Receiving a Tier II operating permit shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

[IDAPA 58.01.01.406, 5/1/94]

Recordkeeping

2.11 The permittee shall maintain sufficient recordkeeping to ensure compliance with all of the terms and conditions of this operating permit. Recording of monitoring information shall include, but not be limited to: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available to Department representatives upon request in either hard copy or electronic format.

[IDAPA 58.01.01.405.1, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

3. DUST COLLECTOR DC-03

3.1 Process Description

The following emissions units are vented to the atmosphere through dust collector DC-03's stack:

- Dryer DR-01
- Burner BU-01

3.2 Control Description

DC-03 is a wet scrubber

Emission Limits

3.3 Emission Limits

Emissions of PM shall not exceed any corresponding emission rate limit in Appendix A.

[IDAPA 58.01.01.405.01, 5/1/94]

3.4 Opacity Limit

Emissions from the scrubber stack, or any other stack, vent, of functionally equivalent opening associated with the unit, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.625, 5/1/94]

Operating Requirements

3.5 Pressure Drop Across the Dust Collector

The pressure drop across the dust collector shall be maintained as follows: greater than 6 in. water column.

[IDAPA 58.01.01.405.01, 5/1/94]

3.6 Scrubbing Media Flow Rate

Water flow rate to the dust collector shall be maintained as follows: greater than or equal to 110 gpm or a water to gas ratio of 5 gpm/1000 acfm. If the water flow is less than 110 gpm, the air flow will be measured to see if there is 5 gpm/1000 acfm.

[IDAPA 58.01.01.405.01, 5/1/94]

3.7 Installation of Monitoring Equipment

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across the dust collector, and to measure the scrubbing media flow rate to the dust collector.

[IDAPA 58.01.01.405.01, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

3.8 Fuels and Fuel Sulfur Content

The fuels burned in the dryer are limited to natural gas and No. 1 and No. 2 fuel oil. The fuel sulfur content shall not exceed the following:

- ASTM Grade No. 1 - 0.3% by weight
- ASTM Grade No. 2 - 0.5% by weight

The permittee shall maintain records of the sulfur content of each fuel delivery for a period of at least five years.

The permittee shall limit the diesel use to less than 619,463 gallons per year.

[IDAPA 58.01.01.405.01 and 728, 5/1/94]

Monitoring and Recordkeeping Requirements

3.9 Pressure Drop and Scrubbing Flow Rate

The following parameters shall be monitored and recorded.

- Pressure drop across the dust collector once on a daily basis.
- Scrubbing media flow rate to the dust collector or water to gas ratio, once on a daily basis.
- Diesel usage for the dryer on a daily and monthly basis.

[IDAPA 58.01.01.405.01, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

4. DUST COLLECTORS DC-01, DC-02, AND DC-04

4.1 Process Description

The following emissions units are vented to the atmosphere through dust collector DC-01's stack:

- Bucket elevators BE-01, BE-02, and BE-03
- Vibrating screens VS-10 VS-11, and VS-14
- Screw conveyors SC-03 and SC-04

The following equipment is vented through DC-02:

- Bucket elevators BE-04 and BE-05
- Nine vibrating screens VS-01 to VS-09
- 11 bins, BN-01 to BN-11
- Belt conveyors BC-05 and BC-10
- Screw conveyors SC-05, SC-06, SC-07, and SC-08

The following equipment is vented through DC-04:

- Hoppers H0-05 and H0-06
- Belt conveyors BC-06 and BC-07
- Bagging stations BA-01, BA-02, and BA-03

4.2 Control Description

The collectors are wet scrubbers.

Emission Limits

4.3 Emission Limits

Emissions of PM from the dust collector stacks shall not exceed any corresponding emission rate limit listed in Appendix A.

[IDAPA 58.01.01.405.01, 5/1/94]

4.4 Stack Concentration

Particulate matter emissions from the dust collector stacks shall not exceed 0.05 g/dscm.

[40 CFR 60.672(a)(1)]

4.5 Opacity Limit

Emissions from the scrubber stacks, or any other stack, vent, or functionally equivalent opening associated with the unit, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.625, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

Operating Requirements

4.6 Pressure Drop Across the Dust Collectors

The pressure drop across the dust collectors shall be maintained as follows: greater than two inches of water column for DC-02 and DC-04, and greater than 4 in. water column for DC-01.

[IDAPA 58.01.01.211.01, 5/1/94]

4.7 Scrubbing Media Flow Rate

Water flow rate to the dust collectors shall be maintained as follows: greater than or equal to 70 gpm for DC-02, 30 gpm for DC-04, and 60 gpm for DC-01.

[IDAPA 58.01.01.405.01, 5/1/94]

4.8 Installation of Monitoring Equipment

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across the dust collectors, and to measure the scrubbing media flow rate to the dust collectors.

[IDAPA 58.01.01.405.01, 5/1/94]

Monitoring and Recordkeeping Requirements

4.9 Pressure Drop and Scrubbing Flow Rate

The following parameters shall be monitored and recorded once on a daily basis.

- Pressure drop across the dust collectors
- Scrubbing media flow rate to the dust collectors

[IDAPA 58.01.01.405.01, 5/1/94]

4.10 Performance Test

Within 180 days after issuance of this permit, the permittee shall conduct a PM performance test on the DC-01 and DC-04 stacks at maximum operating capacity, in accordance with the procedures in 40 CFR 60, Appendix A, Methods 5 and 9, to determine compliance with Permit Condition 4.4. The permittee shall monitor and record pressure drop and scrubbing flow rates during the performance tests.

[IDAPA 58.01.01.405.04, 5/1/94]

Reporting Requirements

4.11 Performance Test Reporting

The permittee shall submit a performance test protocol and performance test report according to the requirements contained in Permit Condition 2.8.

[IDAPA 58.01.01.157.01]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

5. ROD MILL RM-01; BELT CONVEYOR BC-12 AND CAM BELT CB-01

5.1 Process Description

This emission unit consists of emission sources constructed after August 31, 1983, and are thus subject to 40 CFR Part 60, Subpart OOO.

5.2 Control Description

There is no control equipment associated with these sources.

Emission Limits

5.3 Opacity Limit

Fugitive emissions shall not exceed an opacity of 10% as determined by the methods in 40 CFR Part 60, Appendix A.

[40CFR 60.672(b)]

Operating Requirements

5.4 Sand Moisture Content

The moisture content of feed sand to belt conveyor BC-12 shall be greater than 1.5% at all times.

[IDAPA 58.01.01.405.01, 5/1/94]

Monitoring and Recordkeeping Requirements

5.5 Sand Moisture Content

The moisture content of feed sand to belt conveyor BC-12 shall be monitored and recorded on a quarterly basis.

[IDAPA 58.01.01.405.01, 5/1/94]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT No.: 045-00003

Permittee: Unimin Corp.
Location: Emmett, Idaho

Date Issued: September 5, 2002

6. WET PLANT FEEDER AND PROCESSING; DRYER FEEDING OPERATION

6.1 Process Description

The wet-plant feeding equipment consists of the following:

- Hoppers HO-01
- Feeder FE-01
- Cam Belt CB-01

The wet plant consists of the following:

- Rod Mill RM-01
- Vibrating Screens VS-12 and VS-13

The dryer feeding equipment consists of the following:

- Hopper HO-2 and HO-03
- Screw conveyors SC-01 and SC-02
- Belt conveyor BC-02

6.2 Control Description

There is no control equipment associated with these sources.

6.3 Emission Limits for Wet Plant

No emission of any air pollutants shall be emitted from the wet plant.

[IDAPA 58.01.01.405.01, 5/1/94]

6.4 Opacity Limits for Wet Plant Feeding and Dryer Feeding

Visible emissions from sand feeding to the wet plant shall not exhibit greater than 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period, as required by IDAPA 58.01.01.625. Opacity shall be determined using procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.405.01, 5/1/94]

6.5 Wet Plant Opacity Limits

No visible emissions shall be observed from screening, milling, transferring, conditioning, pumping, or stockpiling of sand in the wet plant.

[IDAPA 58.01.01.405.01, 5/1/94]

Operating Requirements

6.6 Sand Moisture Content

The moisture content of feed sand to the wet plant and dryer operation shall be greater than 1.5% at all times.

[IDAPA 58.01.01.405.02, 5/1/94]

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6.7 Moisture Content in Wet Plant

Sand in the wet-plant process shall be completely saturated with water at all times.

[IDAPA 58.01.01.405.01, 5/1/94]

Monitoring and Recordkeeping Requirements

6.8 Moisture Content of Feed Sand

The following parameters shall be monitored and recorded on a quarterly basis.

- Moisture content of feed sand to the wet-plant process
- Moisture content of feed sand to dryer operation

[IDAPA 58.01.01.405.01, 5/1/94]

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7. LOADOUT OPERATION

7.1 Process Description

The loadout equipment consists of the following:

- Hoppers HO-04 and HO-05
- Belt conveyor BC-11
- Loading Spout LS-01

7.2 Control Description

There is no control equipment associated with these sources.

Emission Limits

7.3 Opacity Limits

Visible emissions from sand loading, feeding, or conveying in the loadout operation shall not exhibit greater than 20% opacity for a period of periods aggregating more than three minutes in any 60-minute period, as required by IDAPA 58.01.01.625. Opacity shall be determined using procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.625, 5/1/94]

Operating Requirements

7.4 Sand Moisture Content

The moisture content of feed sand to hopper HO-04 shall be greater than 1.5% at all times.

[IDAPA 58.01.01.405.01, 5/1/94]

Monitoring and Recordkeeping Requirements

7.5 Sand Moisture Content

The moisture content of feed sand to hopper HO-04 shall be monitored and recorded on a quarterly basis. All data shall be kept onsite for a period of five years and shall be made available to Department representatives upon request.

[IDAPA 58.01.01.405.01, 5/1/94]

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8. APPENDIX A - EMISSION RATE LIMITS**Table 8.1 HOURLY (lb/hr) AND ANNUAL (T/yr) EMISSIONS LIMITS***

Source	PM	
	lb/hr	T/yr
Dust collector DC-01 stack	1.38	6.04
Dust collector DC-02 stack	2.95	12.9
Dust collector DC-03 stack	3.24	14.2
Dust collector DC-04 stack	1.18	5.18

* As determined by a pollutant specific EPA reference method, Department-approved alternative, or as determined by the Department's emission estimation methods used in the permit application analysis.

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9. APPENDIX B - FACILITY-WIDE AIR EMISSIONS INVENTORY

The following table represents the potential to emit for criteria air pollutants for the Unimin facility. This table is for informational purposes only.

Table 9.1 FACILITY AIR EMISSIONS INVENTORY

SOURCE	PM	SO ₂	CO	NO _x	VOC
	T/yr	T/yr	T/yr	T/yr	T/yr
DC-01	6.04	--	--	--	--
DC-02	12.9	--	--	--	--
DC-03	14.2	22.3	3.2	12.6	0.1
DC-04	5.2	--	--	--	--
Total	38.3	22.3	3.2	12.6	0.1

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10. GENERAL PROVISIONS

1. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code §39-101 et seq.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain and operate in good working order all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
3. The permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
 - 3.1 To enter upon the permittee's premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - 3.2 At reasonable times, to have access to, and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and to require stack emissions testing (i.e., performance tests) in conformance with state-approved or accepted EPA procedures when deemed appropriate by the Director.
4. Except for data determined to be confidential under Section 9-342A *Idaho Code*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate regional office of the Department of Environmental Quality.
5. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
6. In the event of any change in control or ownership of source(s) from which the authorized emissions emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter; a copy of which shall be forwarded to the Director.
7. This permit shall be renewable on the expiration date, provided the permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within 60 days after receipt of the Director's request shall cause the permit to become void.
8. The Director may require the permittee to develop a list of operation and maintenance procedures to be approved by the Department. Such list of procedures shall become a part of this permit by reference, and the permittee shall adhere to all of the operation and maintenance procedures contained therein.
9. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.